

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Tsutsumi et al.
Appl. No.	:	10/559,801
Filed	:	December 8, 2005
For	:	SYNTHETIC RESIN CAP, CLOSING DEVICE, AND CONTAINER-PACKED BEVERAGE
Examiner	:	Hylton, Robin
Group Art Unit	:	3781

PRE-APPEAL REQUEST FOR REVIEW

Dear Commissioner for Patents:

Applicants request pre-appeal review of the rejections under 35 U.S.C. §103(a) in the final Office Action dated January 15, 2009. This request is being filed with a Notice of Appeal. The claims have been finally rejected so the filing of the present paper is proper. No amendments are being filed with this request. The review is requested for the following reasons.

The Examiner maintained the rejection of claims 1 and 3-5 under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,126,027 to Thompson (Thompson '027) in view of US Patent No. 5,275,287 to Thompson (Thompson '287), and of claims 1 and 3-9 as allegedly being unpatentable over Thompson '027 in view of Corsette (US 3,060,040).

**Thompson '027 in view of Thompson '287**

With respect to the two Thompson et al. references, Applicants previously argued that: (1) it would not have been obvious to move the location of the flange 24 of Thompson '027 to the top plate, since such movement would hinder the ability of the sealing portion 14 of Thompson '287 to pivot radially outward about the annular hinge 28 which is provided "between the flange 24 and the top" and (2) that movement of flange 24 to a position adjacent to the top plate would result in loss of intended function of the flange. Thus, the proposed modification of the location of the flange would render the prior art reference unsuitable for its intended purpose.

As set forth in M.P.E.P. § 2143.01(V), in order to establish a *prima facie* showing of obviousness, a "proposed modification cannot render the prior art unsatisfactory for its intended purpose." While KSR modified the requirements for a *prima facie* showing of obviousness to

eliminate an absolute requirement for a showing of "teaching, showing or motivation," the KSR decision still requires that it is "important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does." Thus, the rule preventing a *prima facie* showing of obviousness from being established when a proposed modification would render the prior art unsuitable for its intended purpose remains valid law after KSR, since one having ordinary skill in the art would have absolutely no reason to modify a reference in a manner that would render it unsuitable for its intended purpose. Thus, the inability of flange to function when modified in the manner suggested by the Examiner strongly supports the nonobviousness of the presently claimed invention.

In the advisory action, the Examiner attempting to rebut the argument that the proposed modification would result in the inability of the device of Thompson '027 by alleging that:

It is well known in the closure art that sealing ribs which engage the inner mouth of a container flex to allow the seal to be inserted into the mouth, but flex back to a "normal rest" state once applied. There is no suggestion that this is not the case with the inner sealing projection of the prior art references. Hence, adding a positioning protrusion provided on the top plate and integrated with the inner seal projection to the closure of Thompson '027 would still allow for flexure and complete sealing of the container.

However, in order to perform the pivoting function, Thompson '287 requires the hinge part 28 to be provided "between the flange 24 and the top" (column 2, line 17). At column 2, lines 45-47, Thompson '287 discloses that "As the closure is applied to the container, the lower end of the plug part 20 enters easily into the neck of the container." This is depicted in FIG. 1 of Thompson '287.

In addition, at column 2, lines 52-60, Thompson '287 teaches that:

The flange 24 is rendered stiff by the buttressing effect arising from the shape of its upper surface 27, so that as the closure is tightened, this abutment causes the flange and the sealing portion 14 to pivot radially outward about the annular hinge 28 so as to pivot the plug part into tighter sealing engagement in the neck and to increase the axial length of sealing contact between the frusto-conical face 21 and the inner surface 16 of the neck. (Emphasis added).

Clearly, the lower end of the sealing portion 14, in its normal state, does not rest on the bottle neck. Therefore, contrary to the Examiner's allegation in the advisory action, Thompson '287, provides a clear statement and a figure which both teach that the sealing ribs do not flex back to a "normal rest" state. Thus, it is clear that the proposed modification of Thompson '027 would render it unsuitable for its intended purpose, and that a proper *prima facie* showing of obviousness cannot be sustained based on a combination of the two Thompson references.

Moreover, the only disclosed function of the flange 24 of Thompson '287 is sealing, by causing the pivoting at the hinge part 28. This results in variation of the height of the flange 24 from the top plate, as the sealing rib bends about the hinge part 28 as the cap is secured. Thus, the "positioning" function of the positioning protrusion, in which the distance of the top plate and the container opening is precisely controlled as recited in the present claims, is neither disclosed nor suggested in either of the cited documents. As such, a person having ordinary skill in the art would have no basis to produce this claimed feature. For this additional reason, no proper *prima facie* showing of obviousness can be established by the combination of the two Thompson references.

Furthermore, in the Thompson '027 reference, the relative positions of the flange 24 with the top plate change as the cap is screwed on. This change in relative positions makes it extremely difficult to precisely control the final distance of the bottle opening and the cap top plate. The presently claimed invention overcomes this difficulty through the recited positioning protrusion situated directly at the top plate. This feature results in both stable and precisely controllable positioning. This result is entirely unexpected, and could not have been predicted by those having ordinary skill in the art. As such, the presently claimed invention provides an unexpected advantage that is strong evidence of the nonobviousness of the claimed invention sufficient to overcome a *prima facie* showing of obviousness, even had such a showing been established.

#### **Thompson '027 in view of Corsette**

With respect to the combination of Thompson '027 and Corsette, the expander element 16 of Corsette has a similar function to the flange 24 of Thompson '287, and is designed to pivot with the plug part itself. Thus, the Examiner is suggesting essentially the same modification of Thompson '027 as would be made by combining it with Thompson '287. Because this modification would render Thompson '027 unsuitable for its intended purpose, the combination of references does not establish a proper *prima facie* showing of obviousness for the same reasons discussed above in connection with the combination of the two Thompson references.

It is also improper to combine Corsette with Thompson '027 because these references actually teach away from each other. At column 2, lines 47-57, Corsette discloses:

Thus as the cap is applied and urged downwardly onto the bottle expander element 16 by its abutting axial engagement with the container end 7, it acts in the manner of a lever arm to flex the entire sealing element 12 including the sealing rib 14 radially outwardly about the connection 13. In doing so it will obviously radially expand the sealing rib 14 to an extent which, of course, progressively increases toward the depending free end edge 15

of the sealing rib to thereby bring the outer surface of the rib and its edge 15 into sealing engagement with the wall which defines the opening 6.  
(Emphasis added).

If a person skilled in the art was to adopt a flexing-back sealing rib, there would be no reason to provide the flange 24/bottle expander element 16 at all, because the original function thereof is rendered unnecessary, notwithstanding moving the location thereof to the top plate. Thus, Thompson '287 and Corsette *teach away* from the presently claimed invention by discouraging repositioning of the flange 24/bottle expander element 16 from the middle portion of the sealing rib. As set forth in M.P.E.P. § 2145(X)(D)(2), "references cannot be combined where reference teaches away from their combination." Accordingly, the combination of Corsette and Thompson '287 to create a *prima facie* showing of obviousness is improper for this additional reason as well.

Moreover, even if it were proper to combine the Corsette and Thompson '027 references, the combination of these references would fail to establish a *prima facie* showing of obviousness because neither reference teaches the claimed feature discussed above of the "positioning" function of the positioning protrusion, in which the distance of the top plate and the container opening is precisely controlled. Similar to the Thompson '027 reference discussed above, the only disclosed function of the bottle expander element 16 of Corsette is sealing, by causing the pivoting at the connection 13. This results in variation of the height of the bottle expander element 16 from the top plate, as the sealing rib bends about the connection 13 as the cap is secured. In other words, the "positioning" function of the positioning protrusion, in which the distance of the top plate and the container opening is precisely controlled as recited in the present claims, is neither disclosed nor suggested in either of the cited documents. Nothing in the knowledge of those having ordinary skill in the art would lead such a person to include this feature. Thus, even if the references were combined, the combination would not be sufficient to establish a *prima facie* showing of obviousness.

Furthermore, as in the Thompson '027 reference, the Corsette reference also teaches a structure with a change in relative positions, which makes it extremely difficult to precisely control the final distance of the bottle opening and the cap top plate. As discussed above, the presently claimed invention overcomes this difficulty through the recited positioning protrusion directly at the top plate. This feature results in the unexpected result of stable and precisely controllable positioning. Such an unexpected advantage of the claimed invention is strong evidence of the

nonobviousness of the claimed invention, which is sufficient to overcome a *prima facie* showing of obviousness, even had such a showing been established.

Conclusion

No *prima facie* showing of obviousness can be sustained on the basis of the cited references. Furthermore, even if a proper *prima facie* showing of obviousness had been set forth, such a showing would be effectively rebutted by the unexpected results reported in Applicants' specification.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the present rejection under 35 U.S.C. 103(a). Accordingly, Applicants respectfully request that the present application be allowed and passed to issue.

Respectfully submitted,

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